

Instructor Kickoff

Welcome to Flatiron School!

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Agenda

- Warm-up & Introductions
- Your Support Team
- Program Tools
- Program Structure & Schedule
- Setting Yourself Up For Success

Warm-up

- Introduce yourself:
 - Name
 - Pronouns
 - Where you are located
- Share a book, podcast, movie, or TV show you've enjoyed recently.

Your Support Team

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I'm your instructor 🙌

What I do:

- Conduct sessions on core curriculum
- Administer and grade assessments
- Deliver feedback on coursework and progress

**Daniel
Burdeno**

He/Him



Your Support Teams



Technical Support:

- **Instructors:** Deliver lectures, conduct assessments, and provide feedback on coursework and progress
- **Pair with a Technical Coach:** Support on labs and projects (nights and weekends only)

Non-Technical Support:

- **Student Advisors:** One-on-one support during your program
- **Career Coaches:** One-on-one support after graduation
- **Community Team:** Slack channels, newsletters, and events to help you connect with others and build your network

The Squad



**Angelica (Jelly)
Spratley**



**Daniel
Burdeno**



**David
Elliott**



**Praveen
Gowtham**



**Brendan
Hutchinson**



**Joseph
Mata**

Instructors and Technical Coaches

- Able to support during specified hours
 - Instructors = Work day
 - Technical Coach = Nights and weekends
- Exceptions include meetings, supporting events, lunch, and prep time.
- Instructional team will give you constructive feedback on code and professional skills.
 - They will not necessarily hand you the answer
 - but they'll guide you.



Program Tools

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Discord

Important channels to know:

#ds-ntl-103023

#all-about-data

#announcements

#events

Reminders:

Update your server profile:

- Photo (optional!)
- First name and last name
- Get roles!

Complete your onboarding (visit [Server Guide](#))

Download the desktop app!



Our Code of Conduct applies to Discord. This is a part of our community but we can't be everywhere at once. Please let us know if you're ever uncomfortable with something that was said or the way something was said.

Canvas

Flatiron School uses Canvas, a learning management system, to deliver our program and technical content.

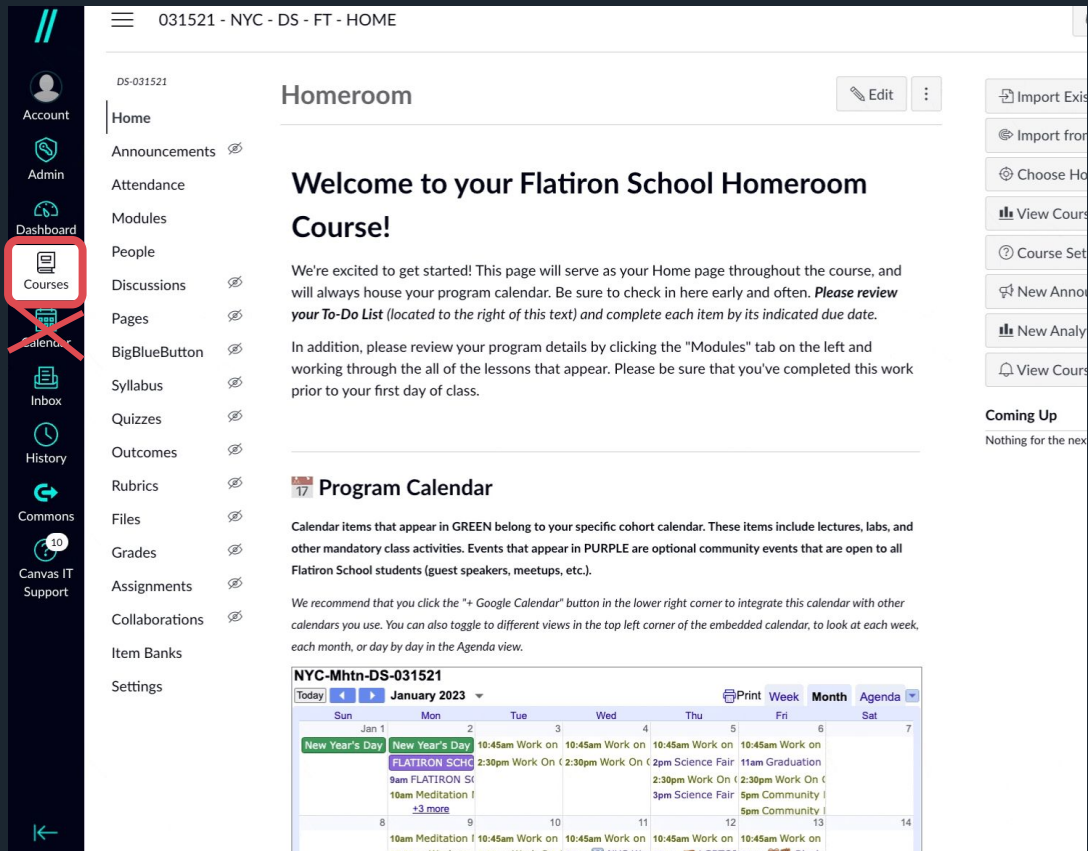
Homeroom Course

General information, resources, and your calendar

Phase Courses

Lessons, labs, assessments, and blogs

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The screenshot shows the Canvas LMS interface for the '031521 - NYC - DS - FT - HOME' course. The sidebar on the left contains links to Account, Admin, Dashboard, Courses (highlighted with a red box and a red 'X' over it), Calendar, Inbox, History, Commons, Canvas IT Support, and a back arrow. The main content area is titled 'Homeroom' and includes a 'Welcome to your Flatiron School Homeroom Course!' message. Below the welcome message is a 'Program Calendar' section. The calendar is a table showing events for January 2023. The events are color-coded: green for specific cohort calendar items and purple for optional community events. The calendar is titled 'NYC-Mhntn-DS-031521' and shows a weekly view for January 2023. The events include 'New Year's Day', 'Flatiron School', 'Science Fair', 'Community', and 'Meditation'.

031521 - NYC - DS - FT - HOME

DS-031521

Home

Announcements

Attendance

Modules

People

Discussions

Pages

BigBlueButton

Syllabus

Quizzes

Outcomes

Rubrics

Files

Grades

Assignments

Collaborations

Item Banks

Settings

Homeroom

Welcome to your Flatiron School Homeroom Course!

We're excited to get started! This page will serve as your Home page throughout the course, and will always house your program calendar. Be sure to check in here early and often. **Please review your To-Do List** (located to the right of this text) and complete each item by its indicated due date.

In addition, please review your program details by clicking the "Modules" tab on the left and working through the all of the lessons that appear. Please be sure that you've completed this work prior to your first day of class.

Program Calendar

Calendar items that appear in GREEN belong to your specific cohort calendar. These items include lectures, labs, and other mandatory class activities. Events that appear in PURPLE are optional community events that are open to all Flatiron School students (guest speakers, meetups, etc.).

We recommend that you click the "+ Google Calendar" button in the lower right corner of the embedded calendar, to integrate this calendar with other calendars you use. You can also toggle to different views in the top left corner of the embedded calendar, to look at each week, each month, or day by day in the Agenda view.

NYC-Mhntn-DS-031521

Today January 2023

Print Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1	2	3	4	5	6	7	
New Year's Day	New Year's Day	10:45am Work on	10:45am Work on	10:45am Work on	10:45am Work on		
	FLATIRON SCH	2:30pm Work On	2:30pm Work On	2pm Science Fair	11am Graduation		
	9am FLATIRON S			2:30pm Work On	2:30pm Work On		
	10am Meditation I			3pm Science Fair	5pm Community I		
	+3 more				5pm Community I		
8	9	10	11	12	13	14	
10am Meditation I	10:45am Work on	10:45am Work on	10:45am Work on	10:45am Work on	10:45am Work on		
10:45am Work on	2:30pm Work On	2:30pm Work On	NYC Work On	NYC Work On	NYC Work On		

FYI: Here's your calendar!

Pair with a Technical Coach

What?

- General comprehension
- Technical support for platforms and applied learning tools
- Getting “unstuck” in labs
- Cannot help with anything assessment-related

When?

Nights and weekends:

- Weekdays: 6pm - midnight ET
- Weekends: 9am - midnight ET

How? Zendesk chatbot in Canvas

The image shows a Canvas LMS interface. The main content area displays the course '2021-07-SENG-FLEX-PHASE-1' with a sidebar menu on the left containing links like Home, Announcements, Assignments, Discussions, Grades, People, Pages, Syllabus, Outcomes, Quizzes, Modules, BigBlueButton, Collaborations, Attendance, New Analytics, and Item Banks. The main content area shows a list of modules, including '[Flex Only] Prerequisite', '[Flex] Phase 1 Prerequisite', 'Welcome to Phase 1', and 'Phase 1 Syllabus: Flex Program .20 Week Pace'. A side chat window titled 'Pair with a TC' is open on the right. It contains a form with fields for Name (Brigid), Email (brigid.oconnor@flatironschool.com), and Choose Your Discipline (Software Engineering). Below the form is a message box with the text: 'Hi! Could use a little help on where to start with the React Controlled Components Lab. I understand the concepts but having a tough time with first steps. GitHub repo is: https://github.com/leanmartinstudio/react'. A 'Start chat' button is at the bottom of the chat window. A red arrow points from a 'Chat' button in the bottom right corner of the Canvas interface to the 'Start chat' button in the chat window.

2021-07-SENG-FLEX-PHASE-1 > Modules

07-21-FLEX-SE

Collapse All View Progress Export Course Content + Module

Home

Announcements

Assignments

Discussions

Grades

People

Pages

Syllabus

Outcomes

Quizzes

Modules

BigBlueButton

Collaborations

Attendance

New Analytics

Item Banks

[Flex Only] Prerequisite Complete All Items

[Flex] Phase 1 Prerequisite 1 pts | Score at least 1.0

Welcome to Phase 1 Complete All Items

Phase 1 Syllabus: Flex Program .20 Week Pace

Phase 1 Syllabus: Flex Program .40 Week Pace

Phase 1 Syllabus: Flex Program .60 Week Pace

Welcome - What To Expect In Phase 1 View

Blogging

Pair with a TC

Name

Brigid

Email

brigid.oconnor@flatironschool.com

Choose Your Discipline

Software Engineering

Message

Hi! Could use a little help on where to start with the React Controlled Components Lab. I understand the concepts but having a tough time with first steps. GitHub repo is: https://github.com/leanmartinstudio/react

Start chat

Nothing for the next week

Chat

Expectations when working with our TCs:

What Students Can Expect from TCs

- There will likely be a wait time.
- Screen sharing and pair programming.
- You likely won't work with a TC all the way through to completing a lab or a final solution. You can always pop back in if you get stuck again!
- The TC team syncs up with the rest of the instructional staff at Flatiron School to share feedback.

What TCs Expect from Students

- **Be kind.** We know you might be frustrated or under stress, and we are here to help you succeed.
- **Be patient.** We support a lot of students, and it's hard to predict wait times. We're working as diligently as we can to get through the queue.
- **Be collaborative.** We aren't going to code for you, or give you the answers straight away. It's all a part of the learning process!

Ada

Meet our chat bot, powered by OpenAI

- Tailored prompts
- Asks questions and uses analogies, diagrams, code samples
- Guides you toward solution

When?

- Use when Pair with a Technical Coach option is unavailable

How? Chat box in Canvas

Array Basics

Learning Goals

- Access and manipulate data in arrays in Ruby

Introduction

Arrays in Ruby share many of the characteristics you're already familiar with from working with arrays in JavaScript. They store lists of data (which can be any data type, and even multiple types of data within the same array) and provide a set of methods for working with arrays in Ruby.

Array CRUD

In Ruby, as in JavaScript, you'll commonly need to Create, Read, Update, and Delete data from arrays. For a full list of array methods in Ruby, see the [documentation](#) for a full list of array methods in Ruby.

Open up IRB and follow along with these examples. Let's start by creating an array representing a shopping list.

```
shopping_list = ["Cookies", "Ice Cream", "Snickers"]
```

Reading Elements From Arrays

As in JavaScript, you can access elements of the array using bracket notation with the index of the element you want to access.

```
shopping_list[0]  
# => "Cookies"  
shopping_list[1]  
# => "Ice Cream"
```

You can also access elements starting from the end of an array by providing a negative index:



Chat



Please show me how to loop through an array in python

Certainly! In Python, you can loop through an array using a for loop. Here's an example:

```
my_array = [1, 2, 3, 4, 5]
```

```
for item in my_array:  
    print(item)
```

In this example, we first define an array called `my_array` that contains the integers 1 through 5. We then use a for loop to iterate through each item in the array and print it to the console.

You can also use a while loop to iterate through an array by using an index variable to keep track of the current position in the array:

```
my_array = [1, 2, 3, 4, 5]  
index = 0
```

```
while index < len(my_array):  
    print(my_array[index])  
    index += 1
```

In this example, we initialize an index variable to 0 and use a while loop to iterate through the array until we reach the end.

Ask a question...



Program Structure & Schedule

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Program Timeline

Phase 1

Weeks 1-3

Data

Engineering

Phase 2

Weeks 4-6

Statistics

Phase 3

Weeks 7-9

Machine

Learning

Phase 4

Weeks 10-12

Advanced

Topics

Phase 5

Weeks 13-15

Capstone 🎉

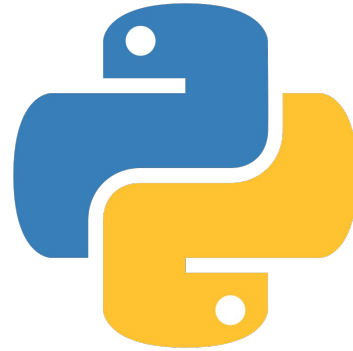
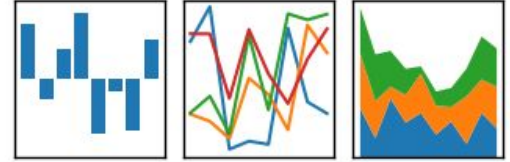
Curriculum Overview

Phase 1

- Coding in Python
- Data Manipulation and Analysis
- Data Gathering
- Data visualization + Tableau

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



Curriculum Overview

Phase 2

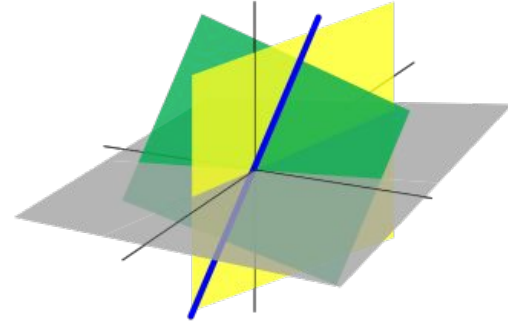
- Coding in SQL
- Statistical Modeling
- Hypothesis testing
- Simple Linear Regression



Curriculum Overview

Phase 3

- The Math behind Machine Learning
- Classification Algorithms
- Building Modeling Pipelines



Curriculum Overview

Phase 4

- Recommendation Systems
- Natural Language Processing
- Neural Networks



Curriculum Overview

Phase 5

- Capstone!
- 2-3 Week Solo
- Project of choice



The Next 15 Weeks

Lessons and Labs

Learn the fundamentals. **You do NOT need to complete all labs and lessons** - but going through most is essential to passing the code challenges and creating projects.

Blogs

Each phase you will write a technical blog to practice technical writing and communication skills. These also bolster your online presence for the job search. **(Required!)**

Code Challenges

Week 2 of phases 1-4 you will take a code challenge. Each student gets a second attempt to pass a different code challenge in the event they fail the first attempt. **(Required!)**

Projects

In week 3 of phase 1-4, you will build a project to practice all of the concepts from the phase and build your portfolio for the job search. Phase 5 consists of 3 weeks to build a cumulative capstone project. **(Required!)**

Plagiarism & Cheating

Lessons and Labs

Remember that you're here to learn and while you can use any resource you desire, copy/pasting code doesn't help you prepare for assessments, interviews, or jobs.

Blogs

Don't plagiarize! Using another entity's work without attribution is plagiarism!

Code Challenges

Allowed:

- Canvas labs, lessons, and lectures
- Your own notes, previous labs, or reviews

Not Allowed:

- Messenger apps
- ChatGPT and other AIs

Projects

Don't plagiarize! Using another entity's work without attribution is plagiarism!

If using code from another source, it needs to be cited and you need to understand how it is being used.

Get your blog on!

- Approximately 5 minute read
- Published online
- Technical or tech related subjects
- 4 published blogs in order to graduate



DEV



Medium

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Setting Yourself Up for Success!

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This isn't like high school or college!



Teaching Methods

- 1:1 instructor meetings
- Office hours
- Lectures (live and recorded)
- Curriculum (lessons and labs)

Student Responsibilities

- Attending and watching Lectures
- Canvas course completion
- Blogs
- Code Challenges
- Projects

Professional Development

- Online branding (LinkedIn)
- Resume and portfolio building
- Networking

Personal Empowerment Protocol:

1. Read the error

2. Google the problem

3. Ask a peer

4. Ask an instructor

- This is an important framework in general for debugging / working through problems.
- Remote learning makes it even more vital!
- Reading errors, looking up problems, and collaborating with peers are essential skills.
- Get practice with them before asking us!

Imposter Syndrome



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Any questions?



For the rest of today...

Now: Data Science Toolkit Lecture!

- Then jump into canvas
- Environmental setup
- Terminal and Git

1:00 pm: Lunch Break

3:00 pm ET: Into to Terminal Lecture!

5:00 pm ET: Program Orientation

6:30 pm ET: Stand Down

Get stuck? Post in our cohort Discord channel!

